

How Office Based Gynaeco-Oncologists in Germany Apply Antiemetic Guidelines in AC-Containing (Neo) Adjuvant Chemotherapy for Breast Cancer



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Introduction

Guidelines for supportive care in oncology are an important instrument to secure treatment quality and to maintain the quality of life of cancer patients. Despite their broad availability and high level of awareness however, there are considerable limitations to the application of antiemetic guidelines. Similarly, doctors may not always be aware of changes in the guidelines. Thus, the implementation of guideline changes may be delayed. The German Professional Association of Gynaeco-Oncology in Practices (BNGO) is dedicated to quality-assured out-patient treatment of patients with gynaecologic tumors. Therefore, we conducted this survey on the awareness and practical usage of antiemetic guidelines in BNGO practices of Gynaeco-Oncology. In total, 48 practices took part in the survey.

Objectives

Goal of this survey was to obtain information on the awareness of different national and international antiemetic guidelines and to evaluate their application in practices of Gynaeco-Oncology in breast cancer patients that receive adjuvant or neoadjuvant chemotherapy with an anthracycline (adriamycin = A, or epirubicin = E) and cyclophosphamide (C).

Background

The 2011 updated guidelines of the American Society of Clinical Oncology (ASCO) [Basch E et al. J Clin Oncol 2011;29(31):4189-98] have classified the combination of anthracyclines and cyclophosphamide as high emetogenic chemotherapy (HEC), although single-agent anthracyclines as well as single-agent cyclophosphamide have only a moderate emetogenic risk. These regimens are frequently used as adjuvant and neoadjuvant chemotherapy in breast cancer. Younger age and female gender of the patients are considered additional risk factors for nausea and vomiting during chemotherapy, which has contributed to the change of the guideline.

Materials and methods

From October 2012 until April 2013, demographic data as well as data on real life antiemetic therapy have been recorded in 48 German Gynaeco-oncologic practices using the specific ODM Quasi® GYN System. 250 breast cancer patients with a median age of 58 years received AC or EC containing adjuvant (81% of patients) or neoadjuvant (19% of patients) chemotherapy. Until April 2013, the documentation of all 250 patients has been completed for the first chemotherapy cycle. 143 patients have also received the third chemotherapy cycle. The documentation involves demographic data of patients and a questionnaire about doctor's knowledge and theoretical application of antiemetic practice. Furthermore patient data about the applied chemotherapies (figure 1) and the real antiemetic practice and the practical adherence to the guidelines were documented.

Anthracycline containing chemotherapy schedules

Schedule	Percentage
AC-Docetaxel	0,39%
AC-Paclitaxel (Q3W)	0,39%
AC-Paclitaxel (weekly)	0,39%
EC	10,20%
EC-Paclitaxel (Q3W)	0,78%
EC-Paclitaxel (weekly)	23,53%
EC-Docetaxel (Q3W)	8,63%
FEC 500/600	18,04%
FEC-Docetaxel	21,18%
TAC	10,98%
Other	5,49%

adjuvant: 81% neoadjuvant: 19%

A=adriamycin, C=cyclophosphamide, E=epirubicin, F=fluorouracil, T=docetaxel

Figure 1

Results

In general the guidelines are well known by the participating BNGO-doctors. The ASCO guideline is the best known guideline in BNGO-practices (81%), followed by the recommendations of the German Working Group Gynaecologic Oncology (AGO) (77%), and the NCCN (31%). The least known guideline is the MASCC/ESMO guideline (23%). In daily practice, antiemetic treatment is mostly applied according to the AGO-recommendations (58%), followed by ASCO (50%), MASCC/ESMO (13%), NCCN (8%), others (2%) or is not based on any guideline at all (2%) (figure 2).

Guidelines: Awareness and practical use

Guideline	Aware of guideline	Adherence to guideline/ treatment based on this guideline
ASCO	81%	50%
AGO	77%	58%
NCCN	31%	8%
MASCC/ESMO	23%	13%
Not	2%	2%
Other	0%	2%

Figure 2

94% of the doctors were aware of the change of the emetogenic risk class of AC/EC into HEC. 83% said that they already used the recommended triple drug antiemetic prophylaxis consisting of 5-HT₃-receptorantagonist (5HT₃-RA), NK₁-receptorantagonist (NK₁-RA) and dexamethasone (Dex), another 13% planned to do so in the future, and only 4% said they did not want to use the triple drug combination. 22% of the doctors said that they had already changed their treatment behavior. However, the documentation of the real life treatment in 143 patients receiving the first cycle of the chemotherapy made obvious that only 33% (47/143 patients) received the triple drug antiemetic prophylaxis recommended in the guidelines, 48% of patients (69/143) received a two drug combination of 5HT₃-RA and Dex (Figure 3). 15 patients received more than 1 5HT₃-RA on day 1. Palonosetron was the most frequently used 5HT₃-RA in the two drug as well as in the three drug combination on day 1. In the acute phase on day 1, 57 patients (pts) received a first generation 5HT₃-RA.

Antiemetic prophylaxis on day 1 in the 1st chemotherapy cycle

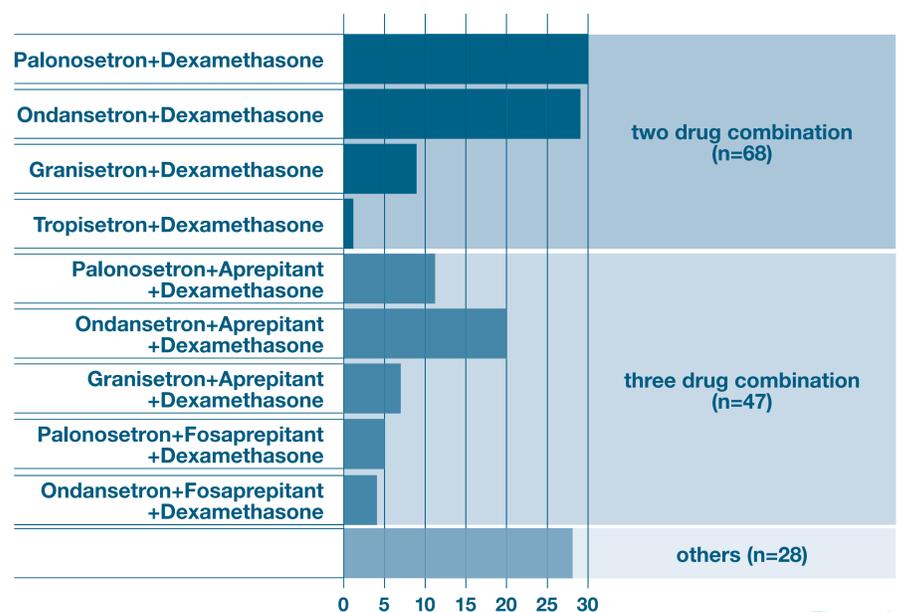


Figure 3

Although the guidelines do not recommend 5HT₃-RAs in the delayed phase, several patients did receive them: 34 pts on day 2, 28 pts on day 3, 13 pts on day 4 and 10 on day 5. In total, 28 out of 143 patients (20%) received the NK₁-RA aprepitant in the delayed phase: 8 patients as single agent and 20 in combination with dexamethasone (each on day 2 and day 3). From cycle 1 to cycle 3 there were no significant changes in the antiemetic drug use which implies that the doctors in general were satisfied with the antiemetic treatment and saw no reason for an adaptation of their antiemetic strategy.

Conclusion

Although approximately 81% of the doctors who participated in the survey are aware of modern antiemetic guidelines, these guidelines were only applied in 33% of patients in the first cycle of AC-based chemotherapy. There were no significant changes in the treatment behavior between the first and the third treatment cycle, which implies that the doctors in general were satisfied with their antiemetic treatment strategies.

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